Software Quality Assurance

Portnov Online
Software Quality Assurance

Q: How many testers does it take to change a light bulb?

Q: How many testers does it take to change a light bulb?
A: None. Testers do not fix problems; they just find them.

Software Quality Assurance

- **Software Quality Assurance can be just a start**, an entry to the IT Industry, many other options be available after that:

  - **QA Engineer** career

  - **QA Manager** career

  - **QA Automation Engineer** (SDET) career

  - **Product Manager** career

  - **Software Developer** career

  - etc.

Software Quality Assurance

Focus…

- **Learn terminology**
    - such as Test Plan, Test Case, Bug Report, etc.
- **Understand the life cycle of Software Development**
    - and QA Engineer role in it
- **Properly plan and approach testing process**
    - an an Engineer
    - write quality Test Cases, Bug Reports
- **Get trained to use QA tools**
    - to effectively communicate found issues
    - to add proper details to the issue

Software Quality Assurance

QA as separate discipline started in around 1990x…

- Most companies had Software Developers to test application
- Portnov Computer School pretty much shaped the Quality Assurance concepts and requirements at the time in Silicon Valley
- In Silicon Valley we're in the heart of technologies, many concepts appear here and spread in the world

Software Quality Assurance

Along with technologies in our lives, Software Development evolves very fast

- **Software releases more frequently**

    - It used to be released once in 6 months. Now it can be released every day with Agile development. Testers have less time to test

- **Software became more complicated**

    - If software becomes 2x as complex – its testing becomes 4x times as complex

It opens opportunities for us!

-    As result, more QA engineers needed on the market

-    There's certain process to ensure quality level of the released   software. QA Engineers work to accommodate that.

-    Testers are in high demand

Software Quality Assurance

Focus…

- **Be open**
  - to go with the flow
- **Stay positive**
  - career change is big but very rewarding step
- **Use your previous background experience**
  - to incorporate into your QA skills

Common Worries

Am I too old/too young?

Education
- I have no college degree
- I have education in unrelated field
- I do not have degree from American University

Is job market good enough to get a job?

How can I get a job with no experience? I do not have US

Citizenship/Green Card (just an EAD)

AI technology like Chat GPT killing IT jobs

Why Software QA is unique?

- Your age doesn't work against you
- Computer Science degree is not required
- Previous profession helps with transferrable skills (documentation skills, quality control, etc.)
- Fairly high compensation
- High demand in major urban areas
- No colleges offering degrees in Software QA
- Easy to learn
- You can start with relatively low technical skill level
- 4-6 month is enough to start working

Software Quality Assurance

- Being team player, ability to collaborate with developers, product management is one of the important requirements for a job

Dev "jokes"

"It works fine on MY computer"
"It worked yesterday."
"It must be a hardware problem."
"What did you type in wrong to get it to crash?"
"You must have the wrong version."
"Somebody must have changed my code."
"Why do you want to do it that way?"
"I thought I fixed that."

What is the path?

- **Complete Homework After each Session**

- **Final test**

- **Internship / Bootcamp**

- **Job Market Clearance**

- **Professional Resume and Support on the Job Search**

Course Components

- **Software Quality Assurance**
  - Software Testing Methodology (types of testing, approach, etc.)
  - Test Planning and Test Documentation (Test Plan, Test Cases, etc.)
  - Writing Bug Reports
  - Agile development (with builds, environments, releases)
  - Tools (Jira, Confluence, Slack, etc.)
- **Technology**
  - SQL, REST API
  - Networking, Linux/Unix
- **Test Automation**
  - Selenium WebDriver
  - DevTools, Git, Jenkins
- **Mobile Testing**
- **Software Testing Projects**
- **Boot camps – provided by the School**
- **How to get a job**

Job Search

Need to get as much calls as you can during job search

1) Post Resume, Apply for Jobs

2) Recruiter Phone Screen

3) Hiring manager Phone Screen

4) Onsite or Remote Interview

5) Job Offer negotiation

Course Components (continue)

- **All sessions are recorded and available**

- **Repeating the class on unlimited basis**

- **Previous class webinars available**

- **Video archive is available**

- **Unlimited online counselling**

- **20 hours of a bonus Job Search class**

Job Search

Job

Once you hired, "firsts" are also important

- **First day at the job**
- **First week at the job**
- **First month at the job**
- **First quarter at the job**

- **Making good impression is very important for career opportunities within the company**
- **You "work" on your resume, every job is preparation for the next job**

What is Software Testing

- **Software testing activities**

    - Learning the product

    - Ad hoc / exploratory testing (plan, execute, analyze)

    - Create **Test Plan**

    - Write **Test Cases** and other test docs

    - Execute test cases – structured testing

    - Automate test cases

    - Write **Bug Reports**

    - Verify bugs fixed

Software Testing

- **We test to make sure the product is up to the requirements**

- **As a sub-product – there's bugs to file and verify**

- We have requirements

- There's steps to bring you to the right place to verify requirement

    - After reaching the place, we can confirm fail/pass

    - Bugs happen during verification of requirement

    - When bugs are found – report immediately after confirmation

    - Bug is a mismatch between actual behavior and expected

$ Levels of Learning

- Recognizing – cannot complete the task without outside help – **no job**

- Reproducing – able to complete tasks without outside help - **employable**

- Subjective Creativity – applies skills and knowledge to resolve new problems - **expert**

- Objective Creativity – obtaining new knowledge by research – very narrow group of scientists

LEVEL 2 IS A MUST TO GET THE JOB

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Rules

DO

- The homework regularly
- Active listening in the class
- Follow the direction
- **Feel lost - be proactive! Never hesitate to ask for help**
- I encourage teams to closely work together by assigning assignment to the team. This helps develop collaboration skills, leadership skills, communication skills
- I encourage participation in class discussions
- **Work hard!**
- **Have fun!**